

REMARKS

As a preliminary matter, the Applicants would like to extend their gratitude to the examiner for her extensive and helpful review of the pending application.

Prior to the entry of the foregoing amendments, claims 1-21 were pending. By the foregoing amendments, claims 1, 11, 13-16, 19, and 21 have been amended, and claims 9, 10, 12, 17, and 18 have been canceled. Claim 1 has been amended to incorporate the previously considered subject matter of dependent claim 10. Similarly, claims 11 and 16 have been amended to include the previously considered subject matter of claims 12 and 18, respectively.

Support for the amendments to the claims may be found variously throughout the application and in the claims as originally filed. No new matter has been added.

The specification has also been amended to correct various typographical errors, in accordance with the examiner's comments. The abstract and the drawings have also been amended according to the examiner's comments.

Claims 2, 3, and 15 have been rejected under 35 U.S.C. §112, second paragraph, as indefinite. Claims 1-13, 15, 16, and 19-21 have been rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,079,339 to Houk, Jr. *et al.* ("the '339 patent"). Claims 14, 17 and 18 have been rejected under 35 U.S.C. §103(a) as obvious over the '339 patent and further in view of U.S. Patent No. 4,843,975 to Welsch *et al.* ("the '975 patent").

The various bases for the claim rejections are addressed below in the order presented in the official action. Reconsideration of the application, as amended, is solicited.

CLAIM REJECTIONS

I. 35 U.S.C. §112, Second Paragraph

Claim 1 has been amended to correct an asserted indefiniteness problem in claims 2 and 3. Similarly, claim 11 has been amended to correct an asserted indefiniteness problem in claim 15.

It is respectfully submitted that claims 2, 3, and 15 were not indefinite under §112 as filed because a claim is considered definite as long as "the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent." *See* M.P.E.P. § 2173. Nevertheless, in view of the amendments presented herein, the rejections of claims 2, 3, and 15 for indefiniteness should be withdrawn.

II. 35 U.S.C. §102(e)

As an initial matter, the Applicants would like to point the examiner's attention to M.P.E.P. §706.02(a), which states that, "[r]evised 35 U.S.C. 102(e) ... applies in the examination of all applications, whenever filed.... The revised statutory provisions supercede all previous versions of 35 U.S.C. 102(e) and 374, with only one exception, which is when the potential reference is based on an international application filed prior to November 29, 2000." *See* M.P.E.P. §706.02(a).

Because the '339 patent did not issue from an international application filed prior to November 29, 2000, revised 35 U.S.C. §102(e) *does apply* to the examination of this application.

Applicants respectfully traverse the rejections of claims 1-13, 15, 16, and 19-21 as anticipated by the '339 patent.

It is well-established that each and every limitation of a claimed invention must be present in a single prior art reference in order for anticipation to occur. *See*, for example, *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1349 (Fed. Cir. 1998). The standard for anticipation is one of strict identity. This standard has not been satisfied with respect to the claims as amended herein.

The '339 patent does not disclose or suggest a shelving system comprising a panel having a plurality of support structures for providing a support surface, wherein the plurality of support structures include inner support structures having a curved

configuration and outer support structures having a continuous height, as recited by amended claim 1. Similarly, the '339 patent does not disclose or suggest a shelving system comprising at least one panel, wherein each panel includes a set of first support structures and a set of second support structures, wherein the set of first support structures are Z-shaped beams and the set of second support structures are box beams, as recited by amended claim 16. Panels incorporating a combination of such support structures exhibit unexpectedly improved structural integrity.

The examiner has acknowledged that the '339 does not disclose "support structures having a constant height across the length of the panel," as currently recited by claim 1. *See* official action at page 7. Moreover, by rejecting claim 18 as obvious over the '339 patent in view of the '795 patent, the examiner has acknowledged that the '339 patent does not anticipate the subject matter of claim 18, which has been incorporated into claim 16. *See* official action at page 7.

Accordingly, it is respectfully submitted that the anticipation rejections of claims 1-8 and 16, 17, and 19-21 should be withdrawn.

Regarding amended claim 11 and the claims dependent therefrom, the examiner has asserted that the '339 patent discloses "orifices of the beam members [which] are defined as a first cavity 78a-d formed by the side walls and the upper wall and a second cavity 76a-e formed by the side walls and the lower wall, wherein the second aperture is larger than the first aperture." *See* official action at page 7.

However, the '339 patent *merely* discloses a panel having first and second apertures. The '339 patent does not teach the relative lengths or sizes of the first and second apertures.

In fact, based upon a visual inspection of Figure 6, the apertures present in the support surface of the '339 patent are at best equal to and seemingly about 20% longer than the apertures present in the lower edge. Accordingly, the '339 patent does not disclose or suggest a shelving system comprising a panel including a plurality of support structures, each support structure including a set of alternating opposed cavities defined by a pair of side walls, an upper wall, and a lower wall, wherein the upper wall includes a first aperture, the lower wall includes a second aperture, and wherein said *second aperture is larger than said first aperture*.

It is respectfully submitted that the anticipation rejection of claims 11 and 13-15 should be withdrawn because the '339 patent does not teach every limitation of the base claim.

III. 35 U.S.C. §103(a)

Applicants respectfully traverse the rejections of claims 14, 17, and 18 as obvious over the '339 patent in view of the '975 patent.

The examiner asserted that "[c]laims 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houk, Jr. et al. as applied to claims 1-13, 15, 16, and 19-21 above, and further in view of Welsch et al." *See* official action at page 7.

The '339 patent was applied against the claims under 35 U.S.C. §102(e). *See* official action at pages 5-6. It is respectfully submitted that under 35 U.S.C. §103(c), §102(e) references may not be applied in an obviousness rejection when common ownership is established.

III. A. Statement Concerning Common Ownership

The present application and the '339 patent were, at the time the invention was made, commonly owned by, or subject to an obligation of assignment to Rubbermaid Incorporated. *See*, for example, the recorded assignment for the present application at reel 012392, frame 0126.

In view of the common ownership, *at the time the later invention was made*, the rejection of claims 14, 17, and 18 should be withdrawn because the '339 patent cannot be used as a reference under 35 U.S.C. §102(e) in an obviousness rejection. *See* 35 U.S.C. 103(c).

Should the examiner wish to apply the '339 patent in an obviousness rejection against the claims under a different basis, such as under §102(a), it is respectfully submitted that any such rejection would constitute a new grounds of rejection and thus should be non-final.

IV. Conclusion

It is respectfully submitted that the application is now in condition for allowance. Pursuant to 37 C.F.R. §1.121, attached hereto following the signature page, is a marked-up version showing the changes made by the present amendment. The first page of the marked-up version of the changes is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, she is respectfully invited to contact the undersigned attorney at the indicated telephone number.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please rewrite paragraph 0005 as follows:

[0005] To provide an inexpensive, reliable, and widely adaptable beam structure[s] that avoids the above-referenced and other problems would represent a significant advance in the art.

Please rewrite paragraph 0041 as follows:

[0041] Panel 12a or 12b includes a support surface 24, a skirt 26 that extends generally downward around the perimeter of support surface 24, plurality of sockets 22a disposed generally at the corners of panel 12a or 12b, and a plurality of support structures (shown as rails or beams 28 in FIGURES 2-18, and rails or beams 30 in FIGURES 19-25). According to a preferred embodiment, the beams are spaced evenly across the width of panel 12a and span substantially the entire length of the panel. According to alternative embodiments, beams 28 or 30 may be concentrated in regions of increased stress loads and include one or more beams. Beams 28 terminate at a wall 32 that connects a pair of sockets 22a. Beams 30 terminate at skirt 26 or sockets 22**b**.

Please rewrite paragraph 0042 as follows:

[0042] Panels 12a also include a plurality of ribs 34 connect beams 28 or 30 with a lower side 36 of support surface 24. According to a preferred embodiment, ribs 34 are generally perpendicular [and/or parallel] to beams 28 or 30 and have varying dimensional characteristics. Also, ribs 34 may have any of a variety of dimensional characteristics (e.g., width, thicknesses, heights, etc.). According to an alternative embodiment, ribs 34 may be parallel to beams 28 or 30.

Please rewrite paragraph 0043 as follows:

[0043] Referring to FIGURES 2-18, each beam 28 includes a pair of opposing beam members (shown as “Z”-shaped members 38, wherein “Z-shaped”

refers to the cross-sectional appearance of adjacent halves of the beam). Each Z-shaped member 38 includes an intermediate wall 40 and a pair of ends (shown as an upper end 42 and a lower end 44). Upper end 42 and lower end 44 provide structure for adjacent beams 28. An upper side 46 of upper end 42, at least partially, comprises support surface 24. According to a preferred embodiment, intermediate wall 40 is generally vertical and approximately perpendicular to support surface 24. According to alternative embodiments, intermediate wall 40 is generally not perpendicular to support surface 24 and may be configured to have any of a variety of angles relative to support surface 24.

Please rewrite paragraph 0045 as follows:

[0045] As shown in the cross sectional view in FIGURE [9] 11, adjacent “Z”-shaped members 38 alternate directions across the width of panel 12a and form a continuous support along the length of panel 12a. The particular dimensional characteristics of “Z”-shaped members 38, are intended to provide increased strength and flexural resistance.

Please rewrite paragraph 0046 as follows:

[0046] According to an exemplary embodiment, upper ends 42 and lower ends 44 have an increased amount of material than in known “Z”-shaped supports. Such a configuration provides increased manufacturing efficiencies and strength-to-weight ratios. According to a preferred embodiment, upper ends 42 and lower ends 44 have a greater amount of wall thickness than intermediate wall 40, and extend further from intermediate wall 40 than in known “Z”-shaped supports. According to a particularly preferred embodiment, upper ends 42 and lower ends 44 have about 50% larger wall thickness than intermediate wall 40, and extend out from intermediate wall 40 by approximately 100% (i.e., approximately twice as far). According to alternative embodiments, the additional distance which upper ends 42 and lower ends 44 [wall thickness of ends and] project from intermediate wall 40 may be determined by the desired performance characteristics (e.g., between about 20% and about 200%). By increasing strength and flexural resistance, panel 12a requires a reduced number of beams per square inch or square feet of surface area. Reducing the number of beams

is intended to reduce the overall panel weight thereby reducing manufacturing and shipping costs. Also, adopting one or more of these design embodiments, the height of the intermediate wall need not be increased for additional strength.

Please rewrite paragraph 0048 as follows:

[0048] As shown in FIGURES 3, 13, and 14, intermediate walls 40 and wall 32 are configured to terminate at socket 22a for a stronger integration and connection with sockets 22a. As shown, outer wall 58 of socket 22a is generally [planer] planar (e.g., flattened out) so that wall 32 may continue towards skirt 26. Generally, planar outer wall 58 at sockets 22a [are] is intended to provide additional strength, strength characteristics that are more predictable, require simpler tooling for molds.

Please rewrite paragraph 0053 as follows:

[0053] According to a preferred embodiment, a pair of “Z”-shaped beams 76 are disposed between “box” beams 30. “Z”-shaped beams 76 [is] are shown to span ends of panel 12b. According to a preferred embodiment, ends 78 of “Z”-shaped beams 76 have a first height HH1 which is less than a second height HH2 [at] at intermediate portion 80. “Z”-shaped beams 76 have a curvilinear parabolic shape with a vertex approximately in the middle of “Z”-shaped beams 76.

Please rewrite paragraph 0054 as follows:

[0054] “Z”-shaped beams 76 include a pair of intermediate side walls 82, 84, a bottom wall 86, and a rib 88 perpendicular to side walls 82, 84. A plurality of cavities 90 are defined by side walls 82, 84, bottom walls 86, and rib 88. According to a preferred embodiment, a plurality of ribs 34 are disposed between beams 30 and “Z”-shaped beams 76, and are perpendicular to side walls 64, 66 of beams 30 and side walls 82, 84 of “Z”-shaped beams 76. Alternatively, ribs 34 extend from lower side 36 of support surface 24 so as to increase rigidity. Ribs 34 are disposed generally parallel with both beams 30 and “Z”-shaped beams 76 and have any of a variety of heights.

IN THE ABSTRACT:

Please rewrite the abstract as follows:

A shelving system [is disclosed. The shelving system] includes a panel having a plurality of support structures, and one or more posts configured to support the panel. One type of support structure includes a pair of opposing beam members having an upper end, a lower end, and an intermediate wall coupling the upper and lower ends. Upper and lower ends of opposing beam members define a plurality of orifices, and a terminal end of the upper end includes a downward projection configured to provide strength and rigidity. Another type of support structure includes a set of alternating opposed cavities defined by a pair of side walls, an upper wall, and a lower wall, where a first cavity is defined by the side walls and the upper wall and a second cavity adjacent the first wall is defined by the side walls and the lower wall.